

CLAIM AMENDMENTS

Claims 1-245 (cancelled)

246 (currently amended) A ~~non-naturally occurring non-native polynucleotide~~
chemically modified nucleic acid construct ~~comprising at least one sequence~~
~~segment, which construct when present in a cell produces a product, said~~
construct comprising at least one member selected from the group consisting of
a modified nucleotide, a nucleotide analog, a non-nucleic acid entity, and a
combination of the foregoing, which construct when present in a cell directs the
synthesis of a nucleic product having biological activity, and said product being
selected from the group consisting of antisense RNA, antisense DNA, sense
RNA, ribozymes, ~~decoys~~, messenger RNA, ~~protein~~ and a combination of any of
the foregoing directs the synthesis of.

247. (currently amended) The construct of claim ~~4~~246, wherein said construct or
a portion thereof is linear, circular or branched.

248. (currently amended) The construct of claim 246~~4~~, wherein said construct or
a portion thereof is single-stranded, double-stranded, partially double-stranded or
triple-stranded.

249. (previously presented) The construct of claim 248, wherein said sequence
segment is in double-stranded form.

250 (previously presented) The construct of claim 248, having at least one
terminus, said terminus comprising a polynucleotide tail.

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251 (previously presented) The construct of claim 250, wherein said polynucleotide tail is hybridized to a complementary polynucleotide sequence.

252. (previously presented) The construct of claim 246, wherein said construct comprises DNA, RNA, a DNA-RNA hybrid, a DNA-RNA chimera or a combination of the foregoing.

253. (previously presented) The construct of claim 247, wherein said modified nucleotide has been chemically modified.

Claim 254 (cancelled)

255. (previously presented) The construct of claim 246, wherein at least one of said nucleotide analog or analogs have been modified on the backbone or sidechain or both.

256 (previously presented) The construct of claim 246, wherein said non-nucleic acid entity is attached to a single strand or to both strand of said sequence segment.

257. (currently amended) The construct of claim 246, wherein said non-nucleic acid entity or entities are selected from a natural or synthetic polymer, and a natural or synthetic ligand, or a combination thereof.

258. (currently amended) The construct of claim 257, wherein said natural polymer comprises a modified or unmodified member selected from the group

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consisting of a polypeptide, a protein, a polysaccharide, a fatty acid, and a fatty acid ester, ~~or~~ and a combination of the foregoing.

259. (previously presented) The construct of claim 257, wherein said synthetic polymer comprises a homopolymer or heteropolymer.

260. (previously presented) The construct of claim 259, wherein said homopolymer or heteropolymer carries a net negative charge or a net positive charge.

261. (currently amended) The construct of claim 246, wherein said construct exhibits a further biological activity imparted by said a modified nucleotide, said a nucleotide analog, said ~~nucleic~~ a non-nucleic acid entity, ~~a ligand~~, or a combination of the foregoing.

262. (currently amended) The construct of claim 261, wherein said biological activity is selected from the group consisting of nuclease resistance, cell recognition, ~~cell binding~~, and cellular or nuclear localization, ~~or~~ and a combination of the foregoing.

263. (canceled)

264. (currently amended) The construct of claim ~~263~~ 246, wherein said ligand or ligands are attached to a single stranded segment, a double stranded segment, a single stranded construct tail, or a sequence complementary to a construct tail, or a combination of the foregoing.

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265. (currently amended) The construct of claim 263, wherein said ligand or ligands are selected from macromolecules, ~~and~~ small molecules, or a combination of both.

266. (previously presented) The construct of claim 246, wherein said construct carried a net positive charge, or a net negative charge, or is neutral or hydrophobic.

267. (currently amended) The construct of claim 246, wherein said construct comprises unmodified nucleotides and at least one member selected from the group consisting of one or more nucleotide analogs, ~~and~~ non-nucleic acid entities, ~~or~~ and a combination thereof.

268. (currently amended) A construct which when present in a cell produces a nucleic acid product, said construct being bound non-ionically to an entity comprising a chemical modification or a ligand in two or more locations on said construct.

269. (previously presented) The construct of claim 268, having at least one terminus, said terminus comprising a polynucleotide tail.

270. (previously presented) The construct of claim 248, wherein said polynucleotide tail is hybridized to a complementary polynucleotide sequence.